IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Baker et al.	Docket No:	39780-2830P1C7
Serial No:	10/006,130	Group Art Unit:	1647
Filed:	December 6, 2001	Examiner:	Rachel B. Kapust

For: **SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC ACIDS ENCODING THE SAME**

Commissioner for Patents
Washington, D.C. 20231

DECLARATION OF AUDREY GODDARD, Ph.D. UNDER 37 CFR 1.131

I, Audrey Goddard, Ph.D. do hereby declare and say as follows:

1. I am Senior Clinical Scientist at the Diagnostics, Development Sciences Department of Genentech, Inc., South San Francisco, CA 94080.

2. I am one of the inventors of the above-identified application.

3. I have read and understood the claims pending in this application, and are aware that the claims have been rejected as anticipated by U.S. Patent Publication No. 2003/0096951 (Jacobs *et al.*, publication date May 22, 2003 and effective filing date August 14, 1998).

4. I, along with other inventors of this application, conceived and reduced to practice the polypeptide designated as PRO1244 (SEQ ID NO:130) claimed in the above-identified application in the United States prior to August 14, 1998.

5. At the time the PRO1244 polypeptide was cloned and sequenced I was responsible for overseeing the sequencing of novel polypeptides, including the PRO1244 polypeptide (SEQ ID NO:130) claimed in the above-identified application.

6. A cDNA clone, referred to as DNA64883-1526 in the above-identified application, was identified as encoding the PRO1244 polypeptide.

7. The full length of the cDNA clone is shown in Figure 73 of the above-identified application. The full-length cDNA sequence has 2213 nucleotide residues. The full length of the PRO1244 peptide encoded by DNA64883-1526 is shown in Figure 74 of

-1-

the above-identified application. The full-length PRO1244 polypeptide has 335 amino acid residues.

8. Copies of the pages from the GSeqEdit database which report the cloning and sequencing data for the PRO1244 polypeptide sequence and its encoding nucleic acid sequence are attached to this declaration (with the dates redacted) as Exhibit A.

9. The GSeqEdit report shows the full-length nucleic acid sequence for DNA-64883-1526 (identified as "DNA-64883") and the full-length PRO1244 polypeptide encoded by DNA 64883. Both the DNA-64883 and the PRO1244 polypeptide sequences were obtained prior to August 14, 1998.

10. The DNA-64883 sequence shown in the GSeqEdit report is identical to that of SEQ ID NO: 129 disclosed in the above-identified application.

11. The beginning of the cDNA sequence corresponding to SEQ ID NO: 129 in the above-identified application is shown on page 1 of the GSeqEdit database report and the location of the first nucleotide is marked with "^insert starts here" and an arrow. The location of the last nucleotide corresponding to SEQ ID NO: 129 is shown on page 11 and is marked with an arrow.

12. The amino acid sequence shown in the GSeqEdit report is identical to that of SEQ ID NO: 130 disclosed in the above-identified application.

13. The first 26 amino acid residues of the PRO1244 polypeptide (SEQ ID NO:130) encoded by the cDNA (DNA-64883) are also shown on page 1 of the GSeqEdit report and the remaining 309 residues appear on pages 2-6 of the report.

14. Exhibit A clearly shows that both the full-length DNA-64883 sequence and the full-length PRO1244 polypeptide sequence disclosed in the above-identified application were obtained prior to August 14, 1998.

15. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information or belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001

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of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

O. Goddard   _6/17/04_

Audrey Goddard   Date

SV 2037583 v1
6/15/04 3:02 PM (39780.2830)

Applicants:	Baker et al.	Docket No:	39780-2830P1C7
Serial No:	10/006,130	Group Art Unit:	1647
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For: **SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC ACIDS ENCODING THE SAME**

Commissioner for Patents
Washington, D.C. 20231

DECLARATION OF WILLIAM WOOD, Ph.D. UNDER 37 CFR 1.131

I, William Wood, Ph.D. do hereby declare and say as follows:

1. I am Director and Staff Scientist at the Department of Bioinformatics, of Genentech, Inc., South San Francisco, CA 94080.

2. I am one of the inventors of the above-identified application.

3. I have read and understood the claims pending in this application, and are aware that the claims have been rejected as anticipated by U.S. Patent Publication No. 2003/0096951 (Jacobs *et al.*, publication date May 22, 2003 and effective filing date August 14, 1998).

4. I, along with other inventors of this application, conceived and reduced to practice the polypeptide designated as PRO1244 (SEQ ID NO:130) claimed in the above-identified application in the United States prior to August 14, 1998.

5. At the time the PRO1244 polypeptide was cloned and sequenced I was responsible for overseeing the cloning of cDNAs which encoded novel polypeptides, including the cDNA that encoded PRO1244 polypeptide (SEQ ID NO:130) claimed in the above-identified application.

6. A cDNA clone, referred to as DNA64883-1526 in the above-identified application, was identified as encoding the PRO1244 polypeptide.

7. The full length of the cDNA clone is shown in Figure 73 of the above-identified application. The full-length cDNA sequence has 2213 nucleotide residues. The full

-1-

length of the PRO1244 peptide encoded by DNA64883-1526 is shown in Figure 74 of the above-identified application. The full-length PRO1244 polypeptide has 335 amino acid residues.

8. Copies of the pages from the GSeqEdit database which report the cloning and sequencing data for the PRO1244 polypeptide sequence and its encoding nucleic acid sequence are attached to this declaration (with the dates redacted) as Exhibit A.

9. The GSeqEdit report shows the full-length nucleic acid sequence for DNA-64883-1526 (identified as "DNA-64883") and the full-length PRO1244 polypeptide encoded by DNA 64883. Both the DNA-64883 and the PRO1244 polypeptide sequences were obtained prior to August 14, 1998.

10. The DNA-64883 sequence shown in the GSeqEdit report is identical to that of SEQ ID NO: 129 disclosed in the above-identified application.

11. The beginning of the cDNA sequence corresponding to SEQ ID NO: 129 in the above-identified application is shown on page 1 of the GSeqEdit database report and the location of the first nucleotide is marked with "^insert starts here" and an arrow. The location of the last nucleotide corresponding to SEQ ID NO: 129 is shown on page 11 and is marked with an arrow.

12. The amino acid sequence shown in the GSeqEdit report is identical to that of SEQ ID NO: 130 disclosed in the above-identified application.

13. The first 26 amino acid residues of the PRO1244 polypeptide (SEQ ID NO:130) encoded by the cDNA (DNA-64883) are also shown on page 1 of the GSeqEdit report and the remaining 309 residues appear on pages 2-6 of the report.

14. Exhibit A clearly shows that both the full-length DNA-64883 sequence and the full-length PRO1244 polypeptide sequence disclosed in the above-identified application were obtained prior to August 14, 1998.

15. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information or belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and

2

the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

_____   _____
William Wood   Date

SV 2037583 v1
6/9/04 1:21 PM (39780.2830)

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Exhibit A
to Declarations of Audrey Goddard and William Wood under 37 CFR 1.131

GSeqEdit Database Report

>
>DNA64883 [Full]
>510 Sites [All Sites]
>
>
>
>
>HBN64883.seq, sequenced at ABI/ACGT by Peter Ma and Ellson Chen
>human ortholog of implantation-associated protein - Rattus

DNA64883 wiw GSeqEdit
DNA64883 zemin GSeqEdit
DNA64883 goddarda GSeqEdit
DNA64883 sheldens GSeqEdit

```
                                        nlaIII
                                        mslI
                                        styI
                                        ncoI
                                        dsaI          tseI
                                        btgI/bstDSI   fnu4HI/bsoFI
                                        bstXI         bbvI
                                        bsaJI         hinPI                        dde
                                                tsp45I   hhaI/cfoI        taiI  bsp
                                bsmAI maeIII      haeII      maeII/hpyC
                                                                          hpy99I mnlI


        mnlI
        taqI
        xhoI      thaI
        tliI      fnuDII/mvnI
        smlI      hinPI  aciI
        paeR7I mwoI    tseI bstUI[M.hhaI-]
  tsp509I[M.ecoRI-]    fnu4HI/bsoFI
  ecoRI   avaI[M.taqI-]    bbvI bshl236I
  apoI  mwoI bseRI    nlaIII hhaI/cfoI      bsmAI maeIII

1 CGGAATTCGG CTCGAGGAGC GAACATGGCA GCGCGTTGGC GGTTTTGGTG TGTCTCTGTG ACCATGGTGG TGGCGCTGCT CATCGTTTGC GACGTTCCCT
  GCCTTAAGCC GAGCTCCTCG CTTGTACCGT CGCGCAACCG CCAAAACCAC ACAGAGACAC TGGTACCACC ACCGGCGACGA GTAGCAAACG CTGCAAGGGA
1           M   A   A   R   W   R   F   W   C   V   S   V   T   M   V   V   A   L   L   I   V   C   D   V   P   S

                            ^insert starts here
                          ^MET
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```
                                                    aluI
        mnlI                                        pvuII
        alwNI[dcm-]                                 mspAlI/nspBII
        alw26I/bsmAI         bsaXI       hpy188I                                         bsmAI
101 CAGCCTCTGC CCAAAGAAAG AAGGAGATGG TGTTATCTGA AAAGGTTAGT CAGCTGATGG AATGGACTAA CAAAAGACCT GTAATAAGAA TGAATGGAGA
    GTCGGAGACG GGTTTCTTTC TTCCTCTACC ACAATAGACT TTTCCAATCA GTCGACTACC TTACCTGATT GTTTTCTGGA CATTATTCTT ACTTACCTCT
 27  A  S  A  Q  R  K  K  E  M  V  L  S  E  K  V  S  Q  L  M  E  W  T  N  K  R  P  V  I  R  M  N  G  D

                                                                             bst4CI/hpyCH4III   cac8I
                                                            tspRI                 ahdI/eaml105I      cac8I
        hpy99I              tsp509I         nlaIII           btsI                        hpyCH4V tspRI     hpyCH4V al
201 CAAGTTCCGT CGCCTTGTGA AAGCCCCACC GAGAAATTAC TCCGTTATCG TCATGTTCAC TGCTCTCCAA CTGCATAGAC AGTGTGTCGT TTGCAAGCAA
    GTTCAAGGCA GCGGAACACT TTCGGGGTGG CTCTTTAATG AGGCAATAGC AGTACAAGTG ACGAGAGGTT GACGTATCTG TCACACAGCA AACGTTCGTT
 60  K  F  R  R  L  V  K  A  P  P  R  N  Y  S  V  I  V  M  F  T  A  L  Q  L  H  R  Q  C  V  V  C  K  Q
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                                                                                    nlaIII
                                                                                    styI
                                                                                    ncoI
                                                                                    dsaI
                                                                                    btgI/bstDSI
                                                                                    bsaJI                hpy18

scrFI[dcm-]
pspGI
mvaI
ecoRII[dcm-]
dsaV[dcm-]
bstNI
bssKI[dcm-]
apyI[dcm+]
sau3AI
mboI/ndeII[dam-]
dpnII[dam-]
dpnI[dam+]
alwI[dam-]              scrFI[dcm-]
bstYI/xhoII            pspGI
alwNI[dcm-]            mvaI
alw26I/bsmAI          ecoRII[dcm-]
tsp509I[M.ecoRI-]     dsaV[dcm-]        hpyCH4V
ecoRI pflMI[dcm-]     bstNI baeI        tspRI
apoI bslI[dcm-]       bssKI[dcm-]       bsrI bsmI hphI
mboII hpy188III       apyI[dcm+] bpmI/gsuI[dcm-]

301 GCTGATGAAG AATTCCAGAT CCTGGCAAAC TCCTGGCGAT ACTCCAGTGC ATTCACCAAC AGGATATTTT TTGCCATGGT GGATTTGAT GAAGGCTCTG
    CGACTACTTC TTAAGGTCTA GGACCGTTTG AGGACCGCTA TGAGGTCACG TAAGTGGTTG TCCTATAAAA AACGGTACCA CCTAAAACTA CTTCCGAGAC
93   A  D  E  E  F  Q  I  L  A  N  S  W  R  Y  S  S  A  F  T  N  R  I  F  F  A  M  V  D  F  D  E  G  S  D
```

```
                        tsp509I[M.ecoRI-]

                              ecoRI                              hpyCH4V
                              apoI                               ecoNI
              sfaNI                                              bslI

          hpy188I         nlaIII  aluI           bslI     hphI  ndeI  maeIII  aciI

    401 ATGTATTTCA GATGCTAAAC ATGAATTCAG CTCCAACTTT CATCAACTTT CCTGCAAAAG GGAAACCCAA ACGGGGTGAT ACATATGAGT TACAGGTGCG
        TACATAAAGT CTACGATTTG TACTTAAGTC GAGGTTGAAA GTAGTTGAAA GGACGTTTTC CCTTTGGGTT TGCCCCACTA TGTATACTCA ATGTCCACGC
    127  V  F  Q   M  L  N   M  N  S   A  P  T   F  I  N   F  P  A  K  G   K  P  K   R  G  D   T  Y  E  L   Q  V  R


           ddeI[M.aluI-]
           bspCNI       mspI   sau3AI
           celII/espI   hpaII  mboI/ndeII[dam-]
           blpI/bpu1102I scrFI[M.hpaII-]                                    bsmFI
           aluI    nciI   dpnII[dam-]                                       sau96I
           pvuII   dsaV   dpnI[dam+]                                        nlaIV
           mspAlI/nspBI bssKI  alwI[dam-]          sspI         tsp509I     avaII  bslI

    501 GGGTTTTTCA GCTGAGCAGA TTGCCCGGTG GATCGCCGAC AGAACTGATG TCAATATTAG AGTGATTAGA CCCCCAAATT ATGCTGGTCC CCTTATGTTG
        CCCAAAAAGT CGACTCGTCT AACGGGCCAC CTAGCGGCTG TCTTGACTAC AGTTATAATC TCACTAATCT GGGGGTTTAA TACGACCAGG GGAATACAAC
    160  G  F  S   A  E  Q   I  A  R  W   I  A  D   R  T  D   V  N  I  R   V  I  R   P  P  N  Y   A  G  P   L  M  L


                                        taqI                                                  aluI
                                        sfuI                                                  tseI
                                        bstBI                                                 fnu4HI/bsoFI
                                        bsiCI                           fokI                  bbvI
                                        tsp509I    tru9I                              bstF5I
                            baeI  mboII mboII  apoI  mseI                bsrI         mwoI hpyCH4V

    601 GGATTGCTTT TGGCTGTTAT TGGTGGACTT GTGTATCTTC GAAGAAGTAA TATGGAATTT CTCTTTAATA AAACTGGATG GGCTTTGTGT GCTTTGTGTT
        CCTAACGAAA ACCGACAATA ACCACCTGAA CACATAGAAG CTTCTTCATT ATACCTTAAA GAGAAATTAT TTTGACCTAC CCGAAAACGT CGAAACACAA
    193  G  L  L  L   A  V  I   G  G  L   V  Y  L   R  R  S   N  M  E  F   L  F  N  K   T  G  W   A  F  A   A  L  C  F
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GSeqEdit, DNA64883 [Full], page 4

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                                                                    nlaIII        nlaIII
                                                          pciI                      styI
                                                          nspHI                     ncoI
                                              bslI        nspI                       dsaI
                                 sau96I                   tfiI    aflIII    tsp509I  btgI/bs
                                 avaI                     hinfI                      bsaJI
          cac8I  ahdI/eam1105I  nlaIV   mnlI   ndeI       mnlI    bsmFI

701 TTGTGCTTGC TATGACATCT GGTCAAATGT GGAACCATAT AAGAGGACCA CCATATGCCC ATAAGAATCC CCACACGGGA CATGTGAATT ATATCCATGG
    AACACGAACG ATACTGTAGA CCAGTTTACA CCTTGGTATA TTCTCCTGGT GGTATACGGG TATTCTTAGG GGTGTGCCCT GTACACTTAA TATAGGTACC
227  V  L  A   M  T  S    G  Q  M  W   N  H  I    R  G  P    P  Y  A  H   K  N  P   H  T  G    H  V  N  Y   I  H  G

                                              tseI
                                 ddeI         fnu4HI/bsoFI
                                 eco81I                    hpy1
                    tru9I        bsu36I/mstII/sauI         bbvI            aluI
          bsrI  aluI  mseI  maeIII  mboII                                  mnlI

801 AAGCAGTCAA GCCCAGTTTG TAGCTGAAAC ACACATTGTT CTTCTGTTTA ATGGTGGAGT TACCTTAGGA ATGGTGCTTT TATGTGAAGC TGCTACCTCT
    TTCGTCAGTT CGGGTCAAAC ATCGACTTTG TGTGTAACAA GAAGACAAAT TACCACCTCA ATGGAATCCT TACCACGAAA ATACACTTCG ACGATGGAGA
260  S  S  Q  A  Q  F  V   A  E  T    H  I  V    L  L  F  N   G  G  V   T  L  G    M  V  L  L   C  E  A   A  T  S

                                                                         sau3AI
                                                                         mboI/ndeII[dam
                                                                         dpnII[dam-]
                                                          sfaNI          dpnI[dam+]
                                              eco57I      fokI           bstYI/xhoII
                                              mboII       bstF5I         bglII        nl
          nlaIII

901 GACATGGATA TTGGAAAGCG AAAGATAAATG TGTGTGGCTG GTATTGGACT TGTTGTATTA TTCTTCAGTT GGATGCTCTC TATTTTAGA TCTAAATATC
    CTGTACCTAT AACCTTTCGC TTTCTATTAC ACACACCGAC CATAACCTGA ACAACATAAT AAGAAGTCAA CCTACGAGAG ATAAAAATCT AGATTTATAG
293  D  M  D  I  G  K  R   K  I  M    C  V  A    G  I  G  L   V  V  L   F  F  S  W   M  L  S   I  F  R    S  K  Y  H
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                                                                                       bsrI                                    tru9I
                                                    bsmFI                               rsaI                                   mseI
                                                    sau96I
                                                    nlaIV
                                                    avaII      bpmI/gsuI[dcm-]
                                            tru9I   ppuMI      bsrI   csp6I
                                            mseI               tspRI  scaI   tsp509I
                              aluI hpy188I          eco0109I/draII

1001 ATGGCTACCC ATACAGCTTT CTGATGAGTT AAAAAGGTCC CAGAGATATA TAGACACTGG AGTACTGGAA ATTGAAAAAC GAAAATCGTG TGTGTTTGAA
     TACCGATGGG TATGTCGAAA GACTACTCAA TTTTTCCAGG GTCTCTATAT ATCTGTGACC TCATGACCTT TAACTTTTTG CTTTTAGCAC ACACAAACTT
327  G   Y   P   Y   S   F   L   M   S   O

                                                         tru9I
                                                         mseI   tru9I
                              bsmI                       ahaIII/draI   tru9I              tru9I
                              mboII hpyCH4V       mnlI           swaI   mseI   mboII       mseI

1101 AAGAAGAATG CAACTTGTAT ATTTTGTATT ACCTCTTTTT TTCAAGTGAT TTAAATAGTT AATCATTTAA CCAAAGAAGA TGTGTAGTGC CTTAACAAGC
     TTCTTCTTAC GTTGAACATA TAAAACATAA TGGAGAAAAA AAGTTCACTA AATTTATCAA TTAGTAAATT GGTTTCTTCT ACACATCACG GAATTGTTCG

                                                                                                    tsp509I       tru9I
             mnlI                                                                     bsrI          tru9I  rsaI   tsp509I
             ddeI                                                                     mboII tspRI
             bspCNI          mnlI tru9I                                               mboII tspRI
                             hpy188I          tsp509I   mseI   earI/ksp632I                         mseI   csp6I  mseI

1201 AATCCCTCGT CAAAATCTGA GGTATTTGAA AATAATTATC CTCTTAACCT TCTCTTCCCA GTGAACTTTA TGGAACATTT AATTAGTAC AATTAAGTAT
     TTAGGAGACA GTTTTAGACT CCATAAACTT TTATTAATAG GAGAATTGGA AGAGAAGGGT CACTTGAAAT ACCTTGTAAA TTAAATCATG TTAATTCATA

                                                             tru9I
                                                             mseI
                                                             hpaI
             psiI tsp509I                  aluI              hincII/hindII hpy188I          bslI

1301 ATTATAAAAA TTGTAAAACT ACTACTTTGT TTTAGTTAGA ACAAAGCTCA AAACTACTTT AGTTAACTTG GTCATCTGAT TTTATATTGC CTTATCCAAA
     TAATATTTTT AACATTTTGA TGATGAAACA AAATCAACTT TGTTTCGAGT TTTGATGAAA TCAATTGAAC CAGTAGACTA AAATATAACG GAATAGGTTT
```

GSeqEdit, DNA64883 [Full], page 6

scrFI[dcm-]
pspGI
mvaI
ecoRII[dcm-]
dsaV[dcm-]
bstNI
bssKI[dcm-]
apyI[dcm+]
sexAI

tsp509I[M.ecoRI-]
xmnI
ecoRI   mboII
asp700   aluI   mslI   fokI
apoI   ddeI[M.aluI-]   bstF5I

taiI
hgiAI/aspHI
bsp1286

bsiHKAI   rmaI ddeI
hpy188I   maeII/hpyCH4IV
eco57I   aflIII maeI bspC

hpy188III   ndeI   maeIII

CCCACATATG CCTGTTACAG ATAACTACAT TAGGAATTCA TTCTTAGCTT CTTCATCTTT GTGTGGATGT
GGGTGTATAC GGACAATGTC TATTGATGTA ATCCTTAAGT AAGAATCGAA GAAGTAGAAA CACACCTACA

1401 GATGGGGAAA GTAAGTCCTG ACCAGGTGTT
     CTACCCCTTT CATTCAGGAC TGGTCCACAA

hpy188I
mboII
bpuAI
bst217I
bstl107I   mboII bmyI btrI bfaI mnlI
accI   sfaNI   tsp509I   nlaIII bbsI

1501 GTATACTTTA CGCATCTTTC CTTTTGAGTA GAGAAATTAT GTGTGTCATG TGGTCTTCTG AAAATGGAAC ACCATTCTTC AGAGCACACG TCTAGCCCTC
     CATATGAAAT GCGTAGAAAG GAAAACTCAT CTCCTTAATA CACCAGAGAC ACCAGAAGAC TTTTACCTTG TGGTAAGAAG TCTCGTGTGC AGATCGGGAG

GSeqEdit, DNA64883 [Full], page 7

```
                                                    tth111I/aspI
                                                    pleI
                                                    pflFI
                                                    mlyI                                          tsp45I
                             bseRI                  hinfI                                         hphI
                             mnlI          bpmI/gsuI[dcm-]                              tru9I maeIII
                             bseRI         hinPI   ddeI                                 mseI  bstEII
          bst4CI/hpyCH4III mnlI hpyCH4V    hhaI/cfoI bspCNI          bsmAI   bsmAI      ddeI
1601 AGCAAGACAG TTGTTTCTCC TCCTCCTTGC ATATTTCCTA CTGCGCTCCA GCCTGAGTGA TAGAGTGAGA CTCTGTCTCA AAAAAAAGTA TCTCTAAATA
     TCGTTCTGTC AACAAAGAGG AGGAGGAACG TATAAAGGAT GACGCGAGGT CGGACTCACT ATCTCACTCT GAGACAGAGT TTTTTTTCAT AGAGATTTAT

                     tru9I                          tfiI
                     mseI                           hinfI
              tsp509I                         xmnI
              psiI   smlI                     asp700 hpy188I
              hpaI                                                                     ddeI
              hincII/hindII
1701 CAGGATTATA ATTTCTGCTT GAGTATGGTG TTAACTACCT TGTATTTAGA AAGATTTCAG ATTCATTCCA TCTCCTTAGT TTTCTTTTAA GGTGACCCAT
     GTCCTAATAT TAAAGACGAA CTCATACCAC AATTGATGGA ACATAAATCT TTCTAAAGTC TAAGTAAGGT AGAGGAATCA AAAGAAAATT CCACTGGGTA

                                                                                                      dde
                          maeIII        haeIII/palI                   tsp45I      rsaI
              ddeI[M.aluI-] tspRI        nlaIII                        tsp509I     maeIII
              aluI                                                                            csp6I
1801 CTGTGATAAA AATATAGCTT AGTGCTAAAA TCAGTGTAAC TTATACATGG CCTAAAATGT TTCTACAAAT TAGAGTTTGT CACTTATTCC ATTTGTACCT
     GACACTATTT TTATATCGAA TCACGATTTT AGTCACATTG AATATGTACC GGATTTTACA AAGATGTTTA ATCTCAAACA GTGAATAAGG TAAACATGGA
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                                                                                                        bssS
                                                                                                        hpy18
                                                                                                        sau3AI
                                                                                          styI cac8I    mboI/nd
                                                                                          haeIII/palI   dpnII[d
scrFI[dcm-]                                                                                mnlI bsaJI    dpnI[da
pspGI
mvaI
ecoRII[dcm-]
dsaV[dcm-]
bstNI
    haeIII/palI
    mscI/balI[dcm-]
    eaeI[dcm-]
    cfrI
    scrFI[dcm-]
    pspGI
    mvaI bssKI[dcm-]
    ecoRII[dcm-]   tsp45I
    dsaV[dcm-]  .  maeIII
    bstNI   hinPI
    bssKI[dcm-] tspRI
    pleI bslI[dcm-] hhaI/cfoI
         mlyI bsaJI apyI[dcm+]                                    ddeI
         hinfI apyI[dcm+] btsI                                    bspCNI

                           ddeI
                           bspCNI

1901 AAGAGAAAAA TAGGCTCAGT TAGAAAAGGA CTCCCTGGCC AGGGCGCAGTG ACTTACGCCT GTAATCTCAG CACTTTGGGA GGCCAAGGCA GGCAGATCAC
     TTCTCTTTTT ATCCGAGTCA ATCTTTTCCT GAGGGACCGG TCCGCGTCAC TGAATGCGGA CATTAGAGTC GTGAAACCCT CCGGTTCCGT CCGTCTAGTG
```

GSeqEdit, DNA64883 [Full], page 9

```
                                            mscI/balI[dcm-]
                                            eaeI[dcm-]
                                            scrFI[dcm-]
                                            pspGI
                                            mvaI
                                            ecoRII[dcm-]
                                            dsaV[dcm-]
                                            bstNI
                        bsmAI               bssKI[dcm-]
                taqI  fokI  cfrI  nlaIII            bsmAI                    scrFI[dcm-]
      hpy188III bsaI bstF5I haeIII/palI      esp3I      aluI                 pspGI
mnlI       hpy188III  apyI[dcm+]  hphI       bsmBI      tsp509I    nlaIV      mvaI
                                                                             ecoRII[dcm-]
2001 GAGGTCAGGA GTTCGAGACC ATCCTGGCCA ACATGGTGAA ACCCCGTCTC TACTAAAAAT ATAAAAATTA GCTGGGTGTG GTGGCAGGAG CCTGTAATCC
     CTCCAGTCCT CAAGCTCTGG TAGGACCGGT TGTACCACTT TGGGGCAGAG ATGATTTTTA TATTTTTAAT CGACCCACAC CACCGTCCTC GGACATTAGG
                                                                                            dsaV[dcm-]
                                                                                            bstNI
                                                                                tspRI       btsI
                                                                                sau3AI
                                                                                mboI/ndeII[dam-]      bssKI[dcm-]
                        ddeI         hpy188III                                   dpnII[dam-] hpyCH4V   apyI[dcm+]
                        bspCNI       ddeI                                        dpnI[dam+] bsgI  bpmI/gsuI[dcm-]
     aluI  mnlI mnlI bssSI    bspCNI           mnlI    tspRI
2101 CAGCTACACA GGAGGCTGAG GCACGAGAAT CACTTGAACT CAGGAGATGG AGGTTTCAGT GAGCCGAGAT CACGCCCACTG CACTCCAGCC TGGCAACAGA
     GTCGATGTGT CCTCCGACTC CGTGCTCTTA GTGAACTTGA GTCCTCTACC TCCAAAGTCA CTCGGCTCTA GTGCGGGTGAC GTGAGGTCGG ACCGTTGTCT
```

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```
                                              fnu4HI/bsoFI
                                              haeIII/palI
                                              mcrI
                                              eagI/xmaIII/eclXI
                                              eaeI
                                              cfrI
                                              bsiEI    rmaI
                                              notI     maeI
                                              fnu4HI/bsoFI bfaI
                                              aciI aciI  speI
  pleI
  mlyI
  hinfI
  bsmAI
2201 GCGAGACTCC ATCTCAAAAA AAAAAAAAA AAAAAAAGGG CGGCCGCCGA CTAGTGAGC
     CGCTCTGAGG TAGAGTTTTT TTTTTTTTT TTTTTTTCCC GCCGGCGGCT GATCACTCG
```

> length: 2269

```
accI(GTMKAC):           1501
aciI(CCGC):             39 498 2250 2254
aflIII(ACRYGT):         780 1586
ahaIII(TTTAAA):         1150
ahdI(GACNNNNNGTC):      278 714
aluI(AGCT):             152 300 429 510 690 822 888 1015 1345 1476 1816 2070 2102
alw26I(CAGNNNCTG):      101 316
alwI(GGATCNNNN):        318 530
alwNI(CAGNNNCTG):       101 316
apoI(RAATTY):           3 310 423 655 1464
apyI(CCWGG):            321 332 1422 1934 1939 2023 2189
asp700(GAANNNNTTC):     1464 1749
aspHI(GWGCWC):          1582
```